

U.S. Application Serial No. 10/802,315
Attorney Docket: 604740-9
Reply to Office Action of March 6, 2006

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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A computer implemented method for producing an orthosis model for a spine of a patient comprising the steps of:

inputting patient data corresponding to a curvature of the patient's spine with a data input device;

determining a curvature type of the patient's spine from a predefined number of curvature types stored in a data base with a curvature determination device on the basis of the patient's data wherein the curvature type is defined by a number of points of deflection of an abstract spine and one or more directions of curvature of the abstract spine; and

selecting at least one orthosis model from a predefined number of orthosis models with a model selection device on the basis of the determined curvature type.

2. (Previously Presented) The computer implemented method according to claim 1, wherein said inputting step is further defined as:

inputting at least one of radiographs, photographs of a back of the patient, status body dimensions of the patient, dynamic body dimensions of the patient, and age of the patient to the data input device.

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3. (Previously Presented) The computer implemented method according to claim 1 wherein said selecting step is further defined as:

selecting a plurality of orthosis models in dependence on the patient's data.

4. (Currently Amended) The computer implemented method according to claim 1 further comprising the step of:

obtaining ~~the~~ patient's data corresponding to factors independent of the curvature of the spine.

5. (Currently Amended) The computer implemented method according to claim 1 further comprising the step of:

modifying the selected orthosis model in response to ~~the~~ patient's data corresponding to factors independent of the curvature of the spine.

6. (Currently Amended) The computer implemented method according to claim 5 further comprising the steps of:

adding the modified orthosis model to the predefined number of orthosis models ~~in the data base.~~

7. (Previously Presented) The computer implemented method according to claim 6 further comprising the step of:

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producing an orthosis mould according to one of the selected and the modified orthosis model.

8. (Previously Presented) The computer implemented method according to claim 7 further comprising the step of:
refinishing the produced orthosis mould.

9. (Currently Amended) The computer implemented method according to claim [[9]] 7 further comprising the steps of:
reading in the refinished orthosis mould with a reading-in device as an orthosis model; and
adding the orthosis model read-in during said reading in step to ~~the data base of~~ having the predefined number of orthosis models.

10. (Currently Amended) The computer implemented method according to claim 1 wherein said determining step includes the ~~step~~ steps of:
assigning a new curvature type based on the patient's data; and
adding the new curvature type to the predefined number of curvature types in the data base.

Claims 11-14 were previously cancelled.

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15. (Currently Amended) The computer implemented device for producing an orthosis model for a spine of a patient, comprising:

a data input device for inputting a patient's data corresponding to a curvature of the patient's spine;

a data base containing a number of curvature types and a number of orthosis models wherein each curvature type is defined by a number of points of deflection of an abstract spine and one or more directions of curvature of the abstract spine and wherein at least one orthosis model is associated with each curvature type;

a curvature determination device to determine a curvature type from among said number of curvature types in said data base on the basis of the patient's data corresponding to the curvature of the patient's spine; and

an orthosis model selection device to select at least one orthosis model from said data base on the basis of the determined curvature type.

16. (Previously Presented) The computer implemented device according to claim 15, wherein said data base is further defined as correlating said curvature types with said orthosis models with one of one-valued relationships and many-valued relationships, and wherein said orthosis model selection device is further defined as being operable to select at least one orthosis model on the basis of said relationships.

17. (Previously Presented) The computer implemented device according to claim 16, wherein said orthosis model selection device selects at least two orthosis models on the

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basis of said relationships, and wherein said orthosis model selection device selects one orthosis model from said at least two orthosis models in dependence on the patient's data corresponding to a curvature of the patient's spine.

18. (Currently Amended) The computer implemented device according to claim 17 further comprising:

a device for obtaining the patient's data corresponding to factors independent of the curvature of the spine, wherein the device inputs the obtained patient's data corresponding to factors independent of the curvature of the spine into said data input device.

19. (Previously Presented) The computer implemented device according to claim 18, further comprising:

a data processing system operable to modify the selected orthosis model according to the patient's data corresponding to factors independent of the curvature of the spine.

20. (Currently Amended) The computer implemented device according to claim 19 wherein said data processing system adds the modified orthosis model to the predefined number of orthosis models in said data base.

21. (Previously Presented) The computer implemented device according to claim 20 wherein said data processing system modifies the curvature types and orthosis models in said data base.

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22. (Previously Presented) The computer implemented device according to claim 21, further comprising:

a shaping device for producing an orthosis mould according to one of the selected and modified orthosis model.

23. (Previously Presented) The device according to claim 22, further comprising:

a reading-in device for reading in an orthosis mould and adding an orthosis model according to the read-in orthosis mould to the number of orthosis models in the data base.

24. (Currently Amended) The computer implemented device according to claim 23, wherein said data processing system determines a new curvature type from the patient's data corresponding to a curvature of the patient's spine and adds the new curvature type to the predefined number of curvature types in said data base.

Claims 25 – 27 were previously cancelled.